UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,287	04/18/2001	Naoto Kinjo	Q63867	5456

7590 12/05/2006

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
WASHINGTON, DC 20037-3213

EXAMINER	
KUMAR, SRILAKSHMI K	

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/836,287	KINJO, NAOTO	
	Examiner	Art Unit	
	Srilakshmi K. Kumar	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *24* is/are allowed.

6)☒ Claim(s) *1,2,4-23,26-29 and 31-41* is/are rejected.

7)☒ Claim(s) *25 and 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The following office action is in response to Amendment filed March 14, 2006. Claims pending are 1, 2, and 4-41. Claim 3 has been cancelled. Claims 32-41 are newly added.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 36 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As to dependent claim 36, applicant claims a camera for capturing ambient conditions. The specification does not disclose where a camera is disclosed for capturing ambient conditions. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4-22, 26, 29, 34, 35, 37, 38, 40 and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Lebby et al (US 5,534,888).

As to independent claim 1, Lebby et al discloses an image display apparatus (Fig. 1), comprising; an image data acquiring section for acquiring image data (col. 3, lines 49-63); an image display section having a plurality of substantially sheet like image display mediums bundled and integrated for displaying images by using said image data obtained by said image data acquiring section (Figs. 2, item 116, col. 3, lines 10-30); an image display mode setting device for setting an image display mode in displaying an image on an image display screen of each of the plurality of image display mediums of said image display section (col. 4, lines 27-49); and an image display adjusting section for adjusting a display image according to the image display mode set by said image display mode setting device (col. 4, lines 27-49); Lebby et al disclose wherein said image display mode setting device includes a transparent input element provided on the respective image display screen of at least one image display medium of the plurality of image display mediums, and said image display mode setting device sets said image display mode under employment of the transparent input element (col. 3, lines 10-30 and col. 6, lines 23-24, wherein Lebby employs pen based input for inputting message by handwriting on the display).

As to independent claim 6, limitations of claim 1, and further comprising, Lebby et al disclose wherein said image display adjusting section adjusts a display output of the display image according to ambient conditions at a location of the image display apparatus (col. 4, line 65-col. 5, line 11).

As to independent claim 8, limitations of claim 1, and further comprising, Lebby et al disclose a lens sheet provided on said image display screen of said image display medium (col. 3, lines 10-30).

As to independent claim 10, limitations of claim 1, and further comprising, Lebby et al disclose wherein an image display method, comprising steps of; bundling and integrating a plurality of substantially sheet like image display mediums for displaying images by using image data (Fig. 1, item 116, Fig. 2); and setting an image display mode indicative of a display mode of an image on each of said image display mediums (col. 3, lines 10-30, col. 4, lines 27-49).

As to independent claim 15, limitations of claim 1, and further comprising, Lebby et al disclose wherein each of two surface sides of each image display medium of the plurality of image display mediums displays has an image display screen for displaying an image (col. 4, lines 27-40), wherein a first surface side of said two surface sides has a first image display screen for displaying a first image, and wherein a second surface side of said two surface sides has a second image display screen for displaying a second image (col. 4, lines 27-40).

As to dependent claims 2 and 11, limitations of claims 1 and 10, and further comprising, Lebby et al disclose wherein said image display mode setting device sets said image display mode by conducting *at least one* of; a designation of the image display screen for image display of one image display medium from the plurality of said image display mediums (col. 4, lines 65-col. 5, line 32), a designation of an image display position on the designated image display screen, a designation of a size of the display image, a designation of a direction of arranging the display image, a designation of a process of inverting the display image, a designation of a configuration of an outer frame of the display image, a designation of displaying a template image, a designation of composting the template image with the display image, and a designation of inputting a written comment (col. 4, lines 65-col. 5, line 32, col. 6, lines 1-30).

As to dependent claims 3 and 12, limitations of claims 1 and 10, and further comprising, Lebby et al disclose wherein said image display mode setting device includes a transparent input element provided on the respective image display screen of at least one image display medium of the plurality of image display mediums, and said image display mode setting device sets said image display mode under employment of the transparent input element (col. 3, lines 10-30).

As to dependent claim 4, limitations of claim 1, and further comprising, wherein said image display adjusting section arranges and adjusts a plurality of images onto the plurality of said image display mediums according to page category information assigned to the plurality of said image display mediums (col. 4, line 65-col. 5, line 45).

As to dependent claim 5, limitations of claim 1, and further comprising, Lebby et al disclose a data communication device that communicates with an external device or via a communication network so as to transmit said image data (col. 5, lines 34-67).

As to dependent claim 7, limitations of claim 1, and further comprising, Lebby et al disclose a memory for storing said image data or voice data annexed to said image display screen (Fig. 5, item 560, col. 5, lines 34-67); and an image input unit for inputting said image data or said voice data annexed to said image display screen, or a voice output unit for reproducing and outputting the voice data when having in said memory said image data or said voice annexed to said image display screen (col. 6, lines 1-22).

As to dependent claim 9, limitations of claim 8, and further comprising, Lebby et al disclose wherein said lens sheet is a lenticular lens sheet or a compound eye lens sheet (col. 3, lines 10-30).

As to dependent claim 13, limitations of claim 1, and further comprising, Lebby et al disclose wherein the plurality of image display mediums displays comprise at least a first image display medium and a second image display medium (col. 4, lines 27-40), wherein an image display screen of said first image display medium displays a first image, and wherein an image display screen of said second image display medium displays a second image (col. 4, lines 27-40), and wherein said first image as displayed by said first display medium and said second image as displayed by said second image display medium are different (col. 4, lines 27-40).

As to dependent claim 14, limitations of claim 1, and further comprising, Lebby et al disclose wherein only one surface side of each image display medium of the plurality of image display mediums has an image display screen for displaying an image (col. 4, lines 27-40).

As to dependent claim 16, limitations of claim 15, and further comprising, Lebby et al disclose wherein said first image display screen displays said first image, and said second image display screen displays said second image, and wherein said first image as displayed on said first image display screen and said second image as displayed on said second image display screen are different (col. 4, lines 27-40).

As to dependent claim 17, limitations of claim 1, and further comprising, Lebby et al disclose wherein image data acquired by said image data acquiring section corresponding an image is written to an image display medium of the plurality of image display mediums, an image display screen of said image display medium displays said image (col. 1, lines 43-63, col. 4, lines 27-49).

As to dependent claim 18, limitations of claim 1, and further comprising, Lebby et al disclose wherein the image for which said image display mode setting device sets the image

display mode in displaying the respective image on a respective image display screen is an image displayed by using said image data obtained by said image data acquiring section (col. 4, lines 27-40).

As to dependent claim 19, limitations of claim 10, and further comprising, Lebby et al disclose wherein the image displayed on a respective image display medium for which a display mode is set in said step of setting an image display mode is an image displayed by using said image data (col. 4, lines 27-40).

As to dependent claim 20, limitations of claim 10, and further comprising, Lebby et al disclose steps of writing image data to an image display medium of the plurality of image display mediums and displaying an image by said image display medium (col. 6, lines 1-22), the displayed image corresponding to the written image data (col. 6, lines 1-22).

As to dependent claim 21, limitations of claim 20, and further comprising, Libby et al disclose a step of erasing said image displayed by said image display medium (col. 6, lines 1-22).

As to dependent claim 22, limitations of claim 1, and further comprising, Libby et al disclose wherein said plurality of substantially sheet-like image display mediums comprise a plurality of electronic papers (col. 3, lines 10-30).

As to dependent claim 26, limitations of claim 22, and further comprising, Lebby et al disclose wherein each electronic paper comprises a sheet shaped liquid crystal film (col. 3, lines 10-30

As to dependent claim 29, limitations of claim 1, and further comprising, Lebby et al disclose wherein the image display second is arranged as pages in a book, each page comprising at least a substantially sheet-like image display medium of said plurality of substantially sheet-

like image display mediums, wherein each page has a first edge bundled together with other pages of the book, and has a second edge physically separate from the other pages of the book, wherein the first and second edges are opposite edges of each page (Figs. 1, 2 and 3).

As to dependent claim 34, limitations of claim 1, and further comprising, Lebby et al disclose wherein the image data acquiring section is detachably connected to the image display section (col. 2, lines 64-col. 3, line 9, connectable input apparatus, 106, for inputting information or data into the image display).

As to dependent claim 35, limitations of claim 1, and further comprising, Lebby et al disclose wherein the image data acquiring section comprises a scanner (col. 2, lines 64-col. 3, line 9, connectable input apparatus, 106, can be any type of input apparatus).

As to dependent claim 37, limitations of claim 6, and further comprising, wherein the ambient conditions comprise an illumination level of the location and an illumination color of the location (col. 2, lines 62-64, where the brightness/contrast is controlled for the images).

As to dependent claim 38, limitations of claim 6, and further comprising, Lebby et al disclose wherein the image display adjusting section adjusts a color of the display image based on the illumination color of the location (col. 2, lines 62-64 where the brightness/contrast is controlled for the images).

As to dependent claim 40, limitations of claim 4, and further comprising, Lebby et al disclose wherein the page category information is at least one of a person, a meeting, a photographing date, an excursion and a flower (col. 4, lines 21-40).

As to dependent claim 41, limitations of claim 8, and further comprising, Lebby et al does not disclose wherein the lens sheet is configured to provide a three dimensional view display (col. 3, lines 10-30).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 23, 27, 28, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebby et al (US 5,534,888) in view Howard et al (US 6,222,513).

As to dependent claims 23 and 31, limitations of claims 20 and 22, and further comprising, Lebby et al do not disclose wherein each electronic paper comprises; a plurality of spheres, each sphere having one half of a first color and a second half of a second color, said first and second color being different; and two sheets having a gap there between in which the spheres are provided, wherein when an electric field is applied to the spheres, the spheres are rotated and fixed. Howard et al disclose where the electronic paper comprises a plurality of spheres, each sphere having one half of a first color and a second half of a second color, said first and second color being different; and two sheets having a gap there between in which the spheres are provided, wherein when an electric field is applied to the spheres, the spheres are rotated and fixed in col. 10, lines 8-35. It would have been obvious to one of ordinary skill in the art to incorporate the electric sheets of Howard et al into that of Lebby et al as Howard et al disclose in col. 1, lines 6-10 where the electric sheet display may be used with liquid crystal technologies.

As to dependent claims 27 and 28, limitations of claim 26, and further comprising, Lebby et al does not disclose where the electronic paper is a reflection type display or a transmission type display. Howard et al disclose wherein each electronic paper is a reflection type display or a transmission type display in col. 1, lines 6-10. It would have been obvious to one of ordinary skill in the art to incorporate the electric sheets of Howard et al into that of Lebby et al as Howard et al disclose in col. 1, lines 6-10 where the electric sheet display may be used with liquid crystal technologies.

As to dependent claims 32 and 33, limitations of claims 1 and 10, and further comprising, Lebby does not disclose wherein the transparent input element comprises a transparent pressure sensitive sheet. Howard et al disclose wherein the transparent input element comprises a transparent pressure sensitive sheet in col. 9, lines 16-36. It would have been obvious to one of ordinary skill in the art to incorporate the electric sheets with pressure sensitive sheet for input of Howard et al into that of Lebby et al as Howard et al disclose in col. 1, lines 6-10 where the electric sheet display may be used with liquid crystal technologies and enables input from the user.

Allowable Subject Matter

7. Claim 24 is allowed.

8. The following is an examiner's statement of reasons for allowance:

With respect to independent claim 24, the prior art of record fail to teach an image display apparatus comprising a plurality of electronic paper, wherein said plurality of electronic papers are sequentially connected in an accordion-folded form, an edge of each electronic paper being connected with an edge of the next electronic paper.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 25 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

With respect to claims 25 and 30, the prior art of record fail to teach an image display apparatus comprising a plurality of electronic paper, wherein said plurality of electronic papers are sequentially connected in an accordion-folded form, an edge of each electronic paper being connected with an edge of the next electronic paper.

Response to Arguments

9. Applicant's arguments filed March 14, 2006 have been fully considered but they are not persuasive.

Applicant argues where the prior art of Lebby et al fail to disclose a transparent input element provided on the respective image display screen. Examiner, respectfully, disagrees. Lebby et al teach a transparent input element in col. 3, lines 10-30 and col. 6, lines 23-24, wherein Lebby employs pen based input for inputting message by handwriting on the display. Applicant argues where the prior art of Lebby et al fail to disclose wherein the image display adjusting section adjusts according to ambient conditions. Examiner, respectfully, disagrees. Lebby et al teach, where the brightness and contrast are adjusted for the images in col. 2, lines

62-64. Applicant argues where the prior art of Lebby et al fail to disclose a lens sheet. Examiner, respectfully, disagrees. Lebby in col. 3, lines 10-30 disclose various display types for the electronic photo album which comprise a lens sheet. Applicant argues where Lebby et al do not disclose displaying images on each side of the display sheet. Examiner, respectfully, disagrees. In col. 4, lines 27-40, Lebby et al disclose where opening of the book, activates the plurality of display pages, as individual pages of the plurality of display pages are turned, electronics senses each of the pages that is being turned and updates the subsequent pages, thus displaying on both sides as a book would display. Applicant argues where Lebby et al do not disclose a plurality of electronic papers are sequentially connected in an accordion folded form, Examiner agrees, see the allowable subject matter as disclosed above.

With respect to claims 1, 2, 4-23, 26-29, 31-41, the rejection has been maintained and made FINAL.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srilakshmi K. Kumar whose telephone number is 571 272 7769. The examiner can normally be reached on 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 571 272 3638. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Srilakshmi K. Kumar
Examiner
Art Unit 2629

SKK
August 7, 2006

SUMATI LEFKOWITZ
SUPERVISORY PATENT EXAMINER